

### Hawaiian Mosses<sup>2</sup>

A decade ago the reviewer criticised local scientific institutions for their plan of desiring to publish simply a check list of Hawaiian plants instead of producing a complete, fully illustrated flora of the Hawaiian Islands. Receiving no encouragement for undertaking such a more pretentious work which should prove of value to the layman as well as to the scientist, he set out alone to write a fully illustrated flora of the Hawaiian Islands as far as the Vascular Plants are concerned. Now he is agreeably surprised to find that the B. P. Bishop Museum of Honolulu has just published a moss flora by Edwin B. Bartram which exceeds in excellence his fondest hope. It is not only illustrated, but it is written so that everyone can understand it, whether technically trained or not.

Bartram's "Manual of Hawaiian Mosses" will always remain a classic in its field. It is a scholarly work of 275 pages, carefully describing and illustrating every moss ever recorded from the Hawaiian Islands. Due to the author's studies and his personal collecting in 1930 in the Islands, 195 species and 19 varieties are now known to comprise the Hawaiian moss flora. Of this number 120 species and 16 varieties prove to be endemic, while 75 species and 1 variety are of more extended range. Seventeen species and 4 varieties are described as new, and 29 nomenclatorial changes have been made. The work also describes the life history and structural features of mosses in general; gives a key to the genera and species represented, a glossary and a complete index.

The "Manual of Hawaiian Mosses" is of interest not only to local botanists and plant lovers. It is recommended to every serious student of the group in the world if for no other reason than that it deals with many cosmopolitan species.

OTTO DEGENER, HONOLULU, T. H.

### Manual of Plant Diseases<sup>3</sup>

The second edition of Heald's Manual of Plant Diseases has been enlarged to 935 pages; it shows considerable new material

<sup>2</sup> Manual of Hawaiian Mosses, Edwin B. Bartram. B. P. Bishop Museum, Honolulu. T. H. 275 pages. 1933.

<sup>3</sup> Manual of Plant Diseases, Frederick DeForest Heald, McGraw-Hill Book Co., 1933.

and a certain amount of revision. It is a pleasure to note that the author has retained the original plan of the book which makes it a work on botany rather than a mere compendium of diseases. It thus takes on both a physiological and an ecological interest. The author is evidently not greatly concerned with genetics, at any rate he gives scant attention to the subject of disease-resistant strains. Like others who are engaged in "practical" work he has not been able to refrain from introducing some "Farmers'-Bulletin" illustrations such as Fig. 2 "Class in Plant Pathology at the State College of Washington." This and other figures could be omitted to advantage.

A convenient division of the book is made, into four sections: I, Introduction and symptoms of disease; II, Non-parasitic diseases; III, Virus and related diseases; IV, Parasitic diseases. In the last-named section there are chapters on diseases caused by bacteria, slime molds, fungi, parasitic seed plants, and nematodes. Most of the diseases are discussed as follows: history, geographical distribution, symptoms, economic importance, etiology, host relations, prevention and control.

Every botanist needs to know something about plant diseases, and here is a very satisfactory presentation of the subject. The book in its present form should prove even more useful than the first edition, which has been a standard reference work for seven years.

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